Fact Sheets and Information Papers

Disposal of Regulated Medical Waste During Deployment

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This Q & A paper has been prepared to assist military personnel in answering frequently asked questions regarding the disposal of medical waste during operational and training deployment. This paper presents the USACHPPM perspective on acceptable infectious waste disposal practices. It is a quick source of information that will be updated as regulations and policies are promulgated. The ultimate goal is to make the medical waste non-infectious and to make it unrecognizable to potential scavengers.

Q1: What means are available to treat and destroy regulated medical waste (to include untreated sharps)?
A1: (a) Ideally, we would want to use a high quality incinerator (local hospital, contractor, or other source) or some other modern means of treating and destroying medical waste. If there are no ideal means available, then the technical opinion at USACHPPM is that the inclined-plane incinerator with vapor burner is a useful means to treat and destroy regulated medical waste, including sharps. The inclined-plane incinerator we refer to is described in paragraphs 2-23b(2) and 2-25 ["Garbage Disposal" and "Rubbish Disposal," respectively] of FM 21-10-1, Unit Field Sanitation Team, October 1989. The incinerator is illustrated in a schematic drawing in Figure A-23 on page A-25 of the same Field Manual.

(b) We recommend that the waste feed to the inclined-plane incinerator be mixed at approximately 10% by weight of regulated medical waste (to include sharps) to 90% by weight of ordinary refuse (i.e., "rubbish"). This mixture will help assure the hottest and cleanest burn possible.

(c) Because the inclined-plane incinerator is considered “open burning,” be sure that Theater Policy allows it to be used. Because this kind of incinerator is a “field expedient,” it should be used only if there are no other or better means for treatment and disposal.

(d) Retrograding untreated or sterilized regulated medical waste to CONUS is discouraged and should be thought of as a “last resort” when there is absolutely no other way to dispose of or manage it. Putrefaction (horrible odors) at the receiving end is the issue.

Q2: How should the ash from the incinerator be disposed?
A2: If the Theater allows disposal of the ash, follow theater policy. Otherwise we recommend that the ash from burning regulated medical waste be shoveled into an open 55 gallon drum which, when full, would be retrograded to CONUS for burial in a sanitary landfill that meets United States operating standards. A retrograde shipment of drums containing this ash is <u>not</u> a hazardous material (HAZMAT) shipment. If the ash from the incinerator does **not** contain medical sharps (i.e., needles, scalpel blades, etc.), then that ash can be managed as ordinary trash and buried at designated locations in Theater.

Q3: What about burying ash with sharps below "scavenging level?"
A3: We believe that scavenging at landfills in Theater cannot effectively be stopped or prevented after our forces depart. We wish to protect United States interests from adverse (even if frivolous) accusation in the event that a local national gets cut or injured by a needle in the local landfills, even if the needle has been incinerated. We therefore recommend that ash which contains sharps be retrograded to CONUS.

Q4: How can RMW be disposed of if an incinerator is not available?
A4: Steam sterilization is another viable treatment for RMW. Autoclave bags must be used. Once steam sterilized and cooled, the waste should be managed as general refuse (protection given to minimize people getting cut when handling it). If the sterilizer is a field sterilizer (like field medical units use), it must **NEVER** be used to sterilize surgical packs if waste has been sterilized; **NEVER!!** If used to sterilize waste, a field medical sterilizer **MUST** be permanently and indelibly marked and labeled as being dedicated for sterilizing waste and ONLY waste. The problem with field sterilizers involves capacity and dependability. They don't hold a high volume, and often break down with extensive use. Be sure to have a back up plan thought out for managing waste that was intended to be sterilized in one of these units.

Q5: What about sharps that have been steam sterilized?
A5: As with incinerator ash, the treated sharps from the sterilizer can be retrograded to CONUS through normal logistical channels. Once treated, the sharps become regular trash and are not subject to the special regulatory requirements of the DOT for regulated medical waste.

Q6: Although retrograding the sharps to CONUS is preferred, is it permissible to bury sharps?
A6: If necessary, burial below scavenger depth (approx. 8 ft) is an acceptable disposal method for sharps. Preferably, this would be done in conjunction with sterilization or grinding, but it is not required. Because landfills are extremely hostile environments to human pathogens (germs), very little risk of harm to human health or the environment would result. The risk to health involves handling and moving the waste. Once the waste is at final disposal location and covered with refuse and compacted, there is no further danger.

Q7: What types of personal protective equipment should be used when burning infectious waste?
A7: Soldiers should wear both skin protection and respiratory protection when burning medical waste. We believe that the paper surgical mask does not protect from hazards inherent in the burning of waste; to wear them leads to a false sense of benefit. Although the soldiers' "gas mask" has a HEPA filter, it would be an improper use of the "gas mask" to have soldiers wear it while burning medical waste. Furthermore, it would send a terribly misleading visual message to almost everyone to see soldiers wearing the military "gas mask" when burning waste. We recommend air purifying respirators (cartridge or canister) with HEPA filters, if available.

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